

ABSTRACT OF THE DISCLOSURE

Systems and method for providing functional magnetic resonance imaging (fMRI) data analysis and comparison services are provided. The system comprises an interface, a processing engine, an fMRI comparison engine, a searchable database, and a billing functionality. The interface may be adapted to receive from a client via a communications network a client data set containing information related to a functional magnetic resonance image. The processing engine may be programmed to identify a plurality of spatially independent components related to the client data set by applying a blind source separation algorithm to the client data set. The searchable database may include information related to (i) a plurality of sets of independent components corresponding to a plurality of functional magnetic resonance image data sets and (ii) a set of fundamental independent components comprising common components which exist in a scientifically-significant portion of the plurality of sets of independent components. The fMRI comparison engine may be programmed to compare the plurality of independent components related to the client data set to the set of fundamental independent components in the database. The interface may be coupled to the comparison engine and adapted to deliver to the client information based on the comparison via the communications network. The billing functionality may be coupled to the interface and adapted to charge the client for delivering the information based on the comparison.